



ExSite™ Explosionproof EHXM Series Fixed Mount System



C1301M (6/05)

Contents

Regulatory Notices	5
Welcome	6
Models	6
Getting Started	6
How to Operate Your System	7
Accessing Main Menu (Preset 95).....	8
CM6700/CM6800	8
KBD200A/KBD300A (Direct Mode Only)	8
CM9500.....	8
CM9700 Series	8
KBD4000/KBD4002.....	8
MPT9500.....	8
NET300/NET350/NET4001A.....	8
Quick Start Guide – System Setup	9
Language	11
System Information	12
Display Setup	13
Label Positions.....	14
Unit Settings	15
Camera.....	15
Type of Lighting.....	15
Auto Focus	15
Zoom Limit	15
Zoom Speed	15
Low Light Limit	15
IR Cut Filter (23X Day/Night Camera).....	16
Advanced Camera Settings	17
Shutter Speed.....	17
AGC Limit	17
Auto Iris.....	18
Auto Sharpness.....	18
Auto White Balance	18
Backlight Compensation (BLC)	19
Video Level	19
Wide Dynamic Range (23X Day/Night Camera).....	19
Other	20
Park Time.....	20
Power Up	21
Power Up Action	21
Line Sync	22
Presets	23
Enable Motion Detection (23X Day/Night Camera).....	24
Edit Detection Areas (23X Day/Night Camera).....	24
Activate AUX Command (23X Day/Night Camera).....	25
AUX Time (23X Day/Night Camera)	25
Patterns	26
Window Blanking.....	27
Reverse	28
Clear Window	28
Alarms	29

Wiper	31
Wiper Control	31
Wiper Mode	31
Wiper Dwell	31
Wiper Time	31
Set Washer Sequence	32
Aux	33
Clear	34
Password	35
Reset, Cycle Power, Reboot	36
Reset Camera	36
Cycle Camera Power	36
Reboot System	36
Software/Language File Upload	37
Upload Icon	37
Specifications	38

Regulatory Notices

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

RADIO AND TELEVISION INTERFERENCE

This equipment has been tested and found to comply with the limits of a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However there is no guarantee that the interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and the receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

You may also find helpful the following booklet, prepared by the FCC: "How to Identify and Resolve Radio-TV Interference Problems." This booklet is available from the U.S. Government Printing Office, Washington D.C. 20402.

Changes and Modifications not expressly approved by the manufacturer or registrant of this equipment can void your authority to operate this equipment under Federal Communications Commission's rules.

This Class B digital apparatus complies with Canadian ICES-003.

Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada.

Welcome

Thank you for purchasing Pelco's ExSite™ EHXM Series explosionproof system. Your new system features a high resolution camera/optics package with programmable software.

This manual is designed to be a reference tool for the operation and programming of your system. Inside you will find information about the features and commands of your EHXM system, as well as a detailed menu tree.

MODELS

EHXM30C22-2	Fixed IOP system with color camera, 60 Hz, 24 VAC
EHXM30C22-2X	Fixed IOP system with color camera, 50 Hz, 24 VAC
EHXM31C22-2	Same as EHXM30C22-2, except supplied with window wiper
EHXM31C22-2X	Same as EHXM30C22-2X, except supplied with window wiper
EHXM30CBW23-2	Fixed IOP system with day/night camera, 60 Hz, 24 VAC
EHXM30CBW23-2X	Fixed IOP system with day/night camera, 50 Hz, 24 VAC
EHXM31CBW23-2	Same as EHXM30CBW23-2, except supplied with window wiper
EHXM31CBW23-2X	Same as EHXM30CBW23-2X, except supplied with window wiper
EHXM30C22-7	Fixed IOP system with color camera, 60 Hz, 90-264 VAC
EHXM30C22-7X	Fixed IOP system with color camera, 50 Hz, 90-264 VAC
EHXM31C22-7	Same as EHXM30C22-7, except supplied with window wiper
EHXM31C22-7X	Same as EHXM30C22-7X, except supplied with window wiper
EHXM30CBW23-7	Fixed IOP system with day/night camera, 60 Hz, 90-264 VAC
EHXM30CBW23-7X	Fixed IOP system with day/night camera, 50 Hz, 90-264 VAC
EHXM31CBW23-7	Same as EHXM30CBW23-7, except supplied with window wiper
EHXM31CBW23-7X	Same as EHXM30CBW23-7X, except supplied with window wiper

GETTING STARTED



DANGER: Do not connect the power module to a supply circuit unless all ExSite system components (enclosure, camera module and power module) are installed.

You will need to install your system before using this manual. Refer to the installation manuals for installation instructions. Once installed apply power to the system. The system will start a configuration sequence. When configuration is done, the following information is displayed on the monitor:

EXSITE EHXM

Version X.XX

D Address: 1

P Address: 2

Comm 2400, N, 8, 1

CONFIGURE DONE

This information will remain on the monitor until system operation begins. Refer to the following pages to learn how to operate and program your EHXM Series system.

How to Operate Your System

<u>Operation</u>	<u>How to Control</u>
Zoom Far	To zoom far, do the following: <ol style="list-style-type: none">1. Press the Zoom Tele button or turn the joystick clockwise until zoom stops at the <i>32X zoom limit</i>.2. Release the button or joystick for one second.3. To continue zooming (digitally), press the button or turn the joystick clockwise again until you have the picture you want or reach the <i>digital zoom*</i> limit.
Zoom Wide	Press the Zoom Wide button or turn the joystick counterclockwise.
Alarms	Refer to the <i>Alarms</i> section.

ACCESSING MAIN MENU (PRESET 95)

You can call up the main menu on your monitor by programming (setting or creating) preset 95 (preset 28 if in AD32-preset mode).

Programming preset 95 for Pelco's controllers varies according to the type of controller you are using. Instructions for programming preset 95 are given below for various Pelco controllers.

CM6700/CM6800

1. Enter the number of the ExSite EHXM system and press the CAM key.
2. Enter 95 and hold the PRESET key for two seconds.
3. In the Edit Preset menu, arrow to SET and press the ACK key. The main menu appears.

KBD200A/KBD300A (DIRECT MODE ONLY)

1. Enter 95.
2. Hold the PRESET key (approximately five seconds) until the main menu appears on the screen.

CM9500

1. Enter the number of the ExSite EHXM system and press the CAM key. The Main menu appears.
2. Highlight SETUP in the Main menu and press the SELECT key.
3. Highlight CAM in the Setup menu and press the SELECT key.
4. Highlight PRESET in the Camera menu and press the SELECT key.
5. Enter 95 and press the F1 key. The main menu appears.

CM9700 SERIES

1. Press the ESCAPE key to open the Main menu. Select DEF. The Define Submenu appears.
2. Enter your four-digit PIN *if this is your first time entering this mode.*
3. Enter 95 and select PRST. The main menu appears on the monitor.
4. Select the Quit icon to return to the default menu.

KBD4000/KBD4002

1. Press the SPOT MONITOR key.
2. Enter 95, then hold the PRESET key (approximately five seconds) until the main menu appears on the screen.

MPT9500

Standard Coaxitron Mode

1. Enter 95 and press the PRESET SET key.
2. Position the asterisk in the YES row and press the F1 key. The main menu appears.

Extended Coaxitron or RS-485 Mode

1. Enter 95 and press the PRESET SET key.
2. Press the F2 key. The main menu appears.

NET300/NET350/NET4001A

1. Check the Set box.
2. Click the preset 95 button. The main menu appears.

Quick Start Guide – System Setup

Presets

The following presets are reserved for special functions.

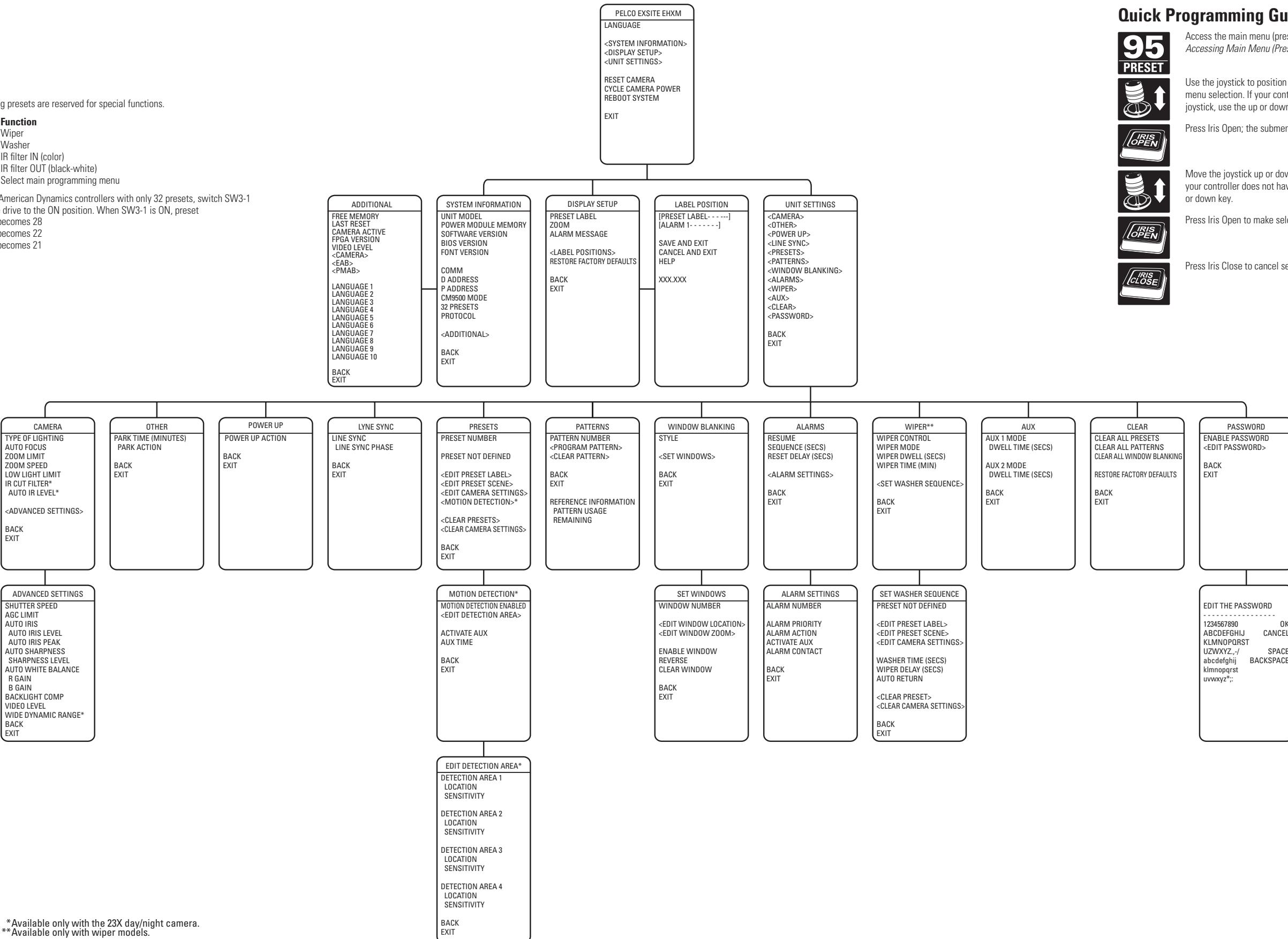
Preset	Function
86	Wiper
87	Washer
88	IR filter IN (color)
89	IR filter OUT (black-white)
95	Select main programming menu

NOTE: For American Dynamics controllers with only 32 presets, switch SW3-1 on the dome drive to the ON position. When SW3-1 is ON, preset

95 becomes 28

89 becomes 22

88 becomes 21



Quick Programming Guide



Access the main menu (preset 95). Refer to *Accessing Main Menu (Preset 95)* section.



Use the joystick to position the cursor beside menu selection. If your controller does not have a joystick, use the up or down key.



Use the joystick to position the cursor beside menu selection. If your controller does not have a joystick, use the up or down key.

Press Iris Open: the submenu/cursor moves to the right



Move the joystick up or down to view your controller does not have a joystick or down key.

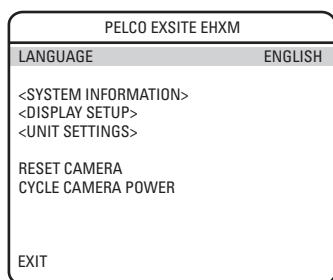


Press Iris Open to make selection.



Press Iris Close to cancel selection.

Language



The language for the on-screen menus is selectable. Available languages include English, Spanish, French, German, Italian, Portuguese, Polish, Russian, Turkish, and Czechoslovakian. The factory default language is English.

To change the display language:

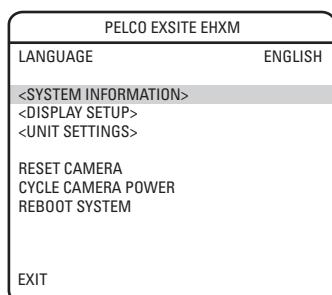
1. Use the joystick to position the cursor beside LANGUAGE.
2. Press Iris Open. The cursor moves to the right, beside the current, selected language.
3. Move the joystick up or down to view selections. Press Iris Open to enter selection.
All on-screen menus are changed to the selected language.

Quick Programming Guide



(See Page 9)

System Information

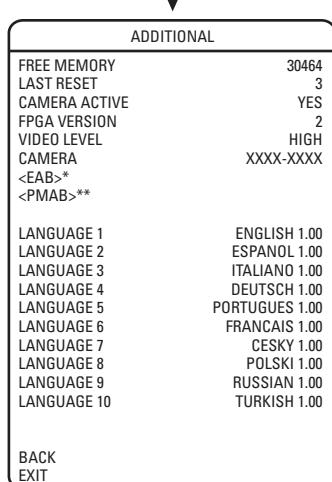
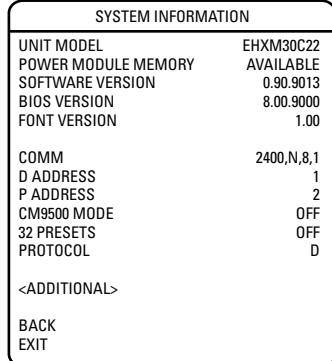


The System Information screen displays ExSite model, software version, available memory, and other diagnostic information.

System settings cannot be changed using this screen. This screen is for reference only.

Use the following steps to display the System Information screen:

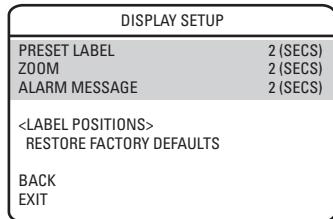
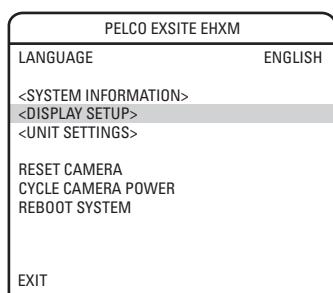
1. Use the joystick to position the cursor beside SYSTEM INFORMATION.
2. Press Iris Open. The SYSTEM INFORMATION window opens.



*EAB (Enclosure Accessory Board) – The EAB information screen displays availability, version, and part number of the enclosure accessory board

**PMAB (Power Module Accessory Board) – The EAB information screen displays availability, version, and part number of the power module accessory board.

Display Setup



Display setup allows you to program how labels are displayed on the monitor. The following labels are available:

PRESET LABEL	Identifies preset.
ZOOM	Identifies the amount of magnification.
ALARM MESSAGE	Displays activated alarm.

A preset label is displayed when a preset is called. The zoom ratio label is displayed when zoom is activated. An alarm message appears on the monitor when an alarm occurs.

The following settings are available for each label:

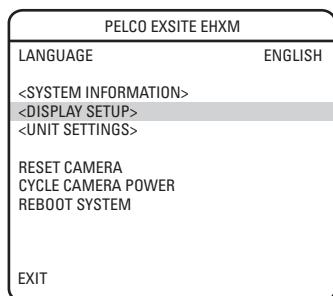
OFF	Label is not displayed when activated.
CONSTANT	The label is continually displayed when activated.
2 SECONDS	The label is displayed for 2 seconds after activation.
5 SECONDS	The label is displayed for 5 seconds after activation.
10 SECONDS	The label is displayed for 10 seconds after activation.

Quick Programming Guide



(See Page 9)

LABEL POSITIONS



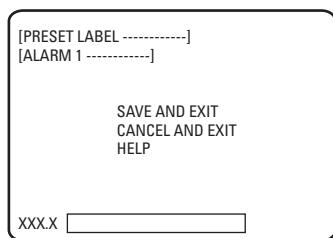
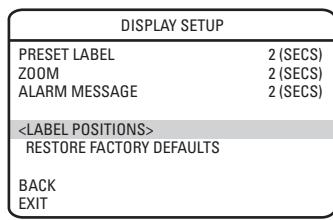
Labels can be placed anywhere on the monitor. This feature allows you to customize the appearance of your monitor screen.

The following labels are not set at fixed positions:

- Preset Label
- Alarm 1
- Zoom

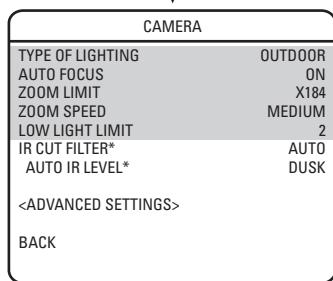
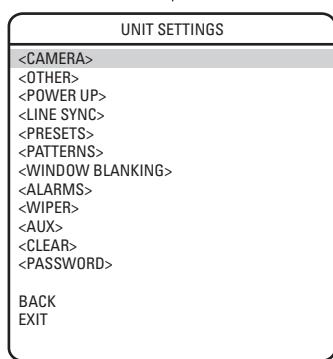
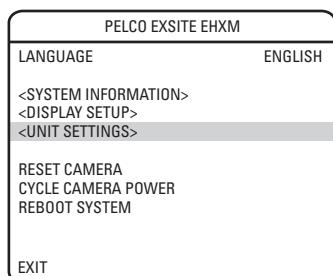
To set a label position:

1. Use the joystick to position the cursor beside a label.
2. Press Iris Open.
3. Use the joystick to move the label up, down, left, and/or right.
4. Press Iris Open.
5. Repeat steps 1 through 4 to position other labels.
6. Position the cursor next to Save and Exit. Press Iris Open to save settings and exit menu.



Unit Settings

CAMERA



TYPE OF LIGHTING

Pelco has calibrated settings that optimize the white balance, and the picture, for indoor and outdoor lighting conditions. There are two settings:

- OUTDOOR (default)
- INDOOR

AUTO FOCUS

Auto focus allows the lens to remain in focus during zoom-in and zoom-out functions.

There are two auto focus settings:

- | | |
|--------------|---|
| ON (default) | If auto focus mode is set to ON, the camera will focus automatically when using zoom functions. |
| OFF | Focus is operated manually. To focus, press the Focus Far or Focus Near button on the controller. |

ZOOM LIMIT

Zoom limit allows the user to define a limitation on the amount of telephoto zoom. The following are the zoom limit settings for the ExSite Series systems:

- | | |
|----------------------|--|
| 23X Day/Night Camera | Camera zooms optically to 23X and then zooms electronically. 23X, 32X, 92X, 184X, or 230X. Default setting is 184X. |
| 22X Color Camera | Camera zooms optically to 22X and then zooms electronically. 32X, 88X, 176X, 220X, or 264X. The default setting is 176X. |

ZOOM SPEED

Zoom speed allows the user to define how fast the dome will go from full wide zoom to the optical zoom. The default setting is MEDIUM.

- | | | |
|------------------|-------------|---------------|
| SPEED | 22X COLOR | 23X DAY/NIGHT |
| HIGH | 2.4 seconds | 2.9 seconds |
| MEDIUM (default) | 3.9 seconds | 4.2 seconds |
| LOW | 6.3 seconds | 5.8 seconds |

NOTE: When using the HIGH setting, the image may be out of focus until zooming stops.

LOW LIGHT LIMIT

Low light limit is the maximum duration, in fractions of a second, that the electronic shutter will remain open in low light conditions. The default setting is 2.

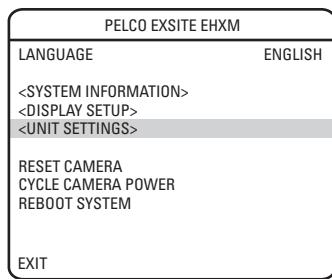
Settings include the following:

- | | | |
|----------------|------------------|------------------|
| 2 = 1/2 second | 8 = 1/8 second | 30 = 1/30 second |
| 4 = 1/4 second | 15 = 1/15 second | 60 = 1/60 second |

Quick Programming Guide



(See Page 9)



IR CUT FILTER (23X DAY/NIGHT CAMERA)

ExSite EHXM has two modes of operation: color, and black-white. You can increase sensitivity in low light conditions by switching to black-white mode (removing the IR cut filter). Color mode is preferred in normal lighting conditions.

The following are the settings for the IR cut filter:

- | | |
|----------------|--|
| OFF | Manual operation is controlled by preset 88 (filter IN) and 89 (filter OUT). |
| AUTO (default) | Automatic operation is controlled by the Auto IR Level setting. |

Auto IR Level

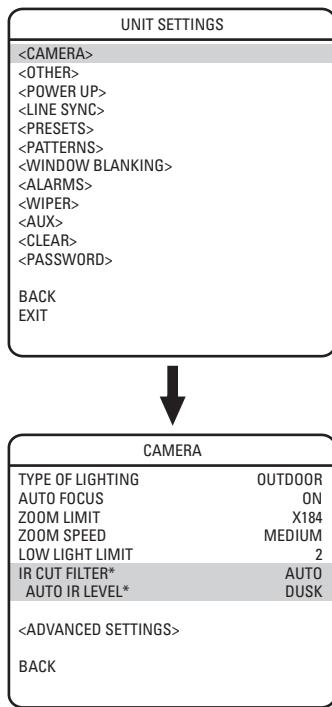
The auto IR level is the light level at which the infrared filter switches IN or OUT.

Following are the available settings for the Auto IR Level:

DUSK (default)	Approximately 6 lux (black-white) Approximately 13 lux (color)
DARK	Approximately 0.1 lux (black-white) Approximately 2 lux (color)

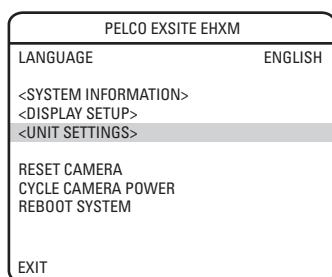
NOTES:

- If backlight compensation is ON and the IR cut filter switches OUT in normal lighting conditions, adjust the Auto IR Level to a darker setting. Refer to the *Backlight Compensation (BLC)* section.
- Low light* does not mean *no light*. Some type of illumination is required (street light, IR light, etc.). The camera is not sensitive to IR light when the IR cut filter is IN.



* Available only with the 23X day/night camera.

ADVANCED CAMERA SETTINGS



SHUTTER SPEED

Shutter speed is the duration of the electronic shutter. Program shutter speed to operate automatically (Auto) or manually (Numeric Value).

AUTO (default)

The electronic shutter speed is set automatically by the amount of light sensed by the camera.

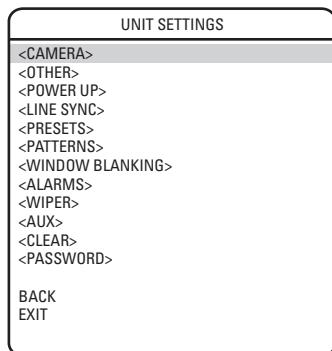
NUMERIC VALUE

The system has several numerical shutter speed settings. The higher the number, the faster the electronic shutter.

The slowest shutter speed setting is $2 = 1/2$ second
The fastest setting is $30,000 = 1/30,000$ second

Increasing the shutter speed lowers the light sensitivity and reduces the streaking of fast moving objects.

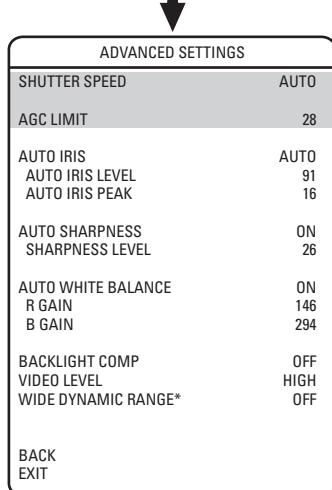
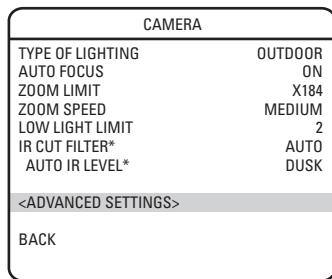
NOTE: Set the shutter speed to 100 if you are using an NTSC camera in a 50 Hz environment. This will eliminate any flicker that may occur in the picture.



AGC LIMIT

AGC Limit allows users to adjust how the system balances AGC (automatic gain control) and electronic shutter in low-light conditions. As scene lighting decreases, the system will automatically adjust, adding a mixture of AGC and slow shutter according to the AGC LIMIT setting. AGC LIMIT can be set between 0 and 40, with 40 applying maximum AGC before slow shutter. In contrast, setting AGC LIMIT to 0 will force the system software to apply maximum slow shutter (as defined by the LOW LIGHT LIMIT setting) before any AGC is applied. The default setting of 28 sets the AGC and slow shutter balance to favor AGC, yielding more real-time low-light images.

NOTE: The maximum slow shutter that the system will achieve is 1/2 second shutter (refer to the Low Light Limit section).

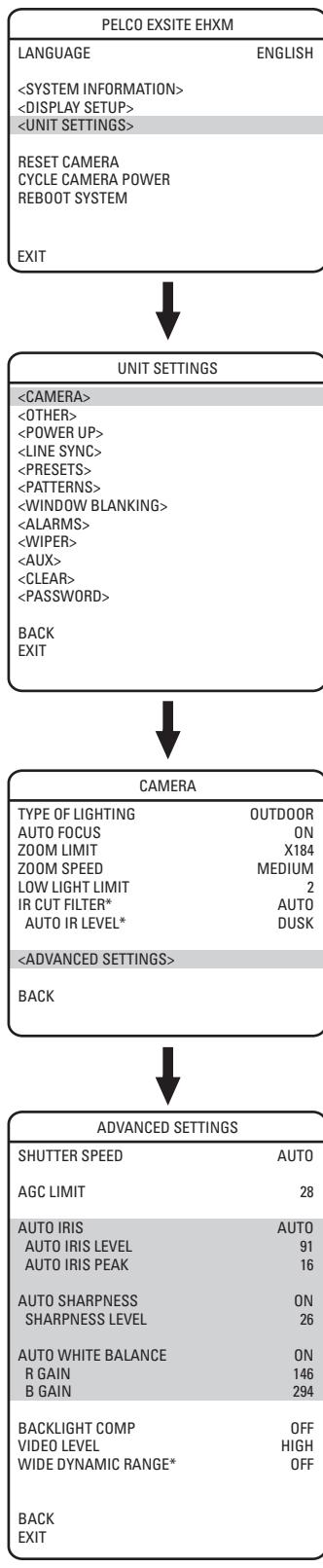


* Available only with the 23X day/night camera.

Quick Programming Guide



(See Page 9)



AUTO IRIS

Auto iris is the lens function that automatically opens and closes the iris in response to changing light conditions.

Program the auto iris to operate automatically or at a user-defined level.

OFF Auto iris is disabled, and control is always manual.

AUTO (default) The iris is adjusted automatically to produce a constant video output as determined by the Auto Iris Level setting.

NOTE: If auto iris is in the auto mode, it will remain that way until the iris is manually opened or closed. The system will return to auto mode when it is panned or tilted more than 15 degrees.

Auto Iris Level

Auto iris level is the numeric value the auto iris uses to maintain the brightness level of the camera. Increase the value to brighten the scene. Decrease the level to darken the scene. This setting can be adjusted if the video level in the auto iris mode is too bright or too dark.

NOTE: If backlight compensation is ON, decrease the Auto Iris Level setting.

Auto Iris Peak

Increasing the peak value will cause the auto iris circuit to react more to highlights or "peaks" in the picture. Decreasing this value will cause it to use the average video level to adjust the iris.

AUTO SHARPNESS

Auto sharpness enhances picture detail by increasing the aperture gain of the camera and sharpening the edges in the picture.

There are two settings:

ON (default) The camera automatically maintains a normal sharpness mode.

OFF The sharpness of the picture is set manually by programming the sharpness level. Sharpness level settings range from 0-63.

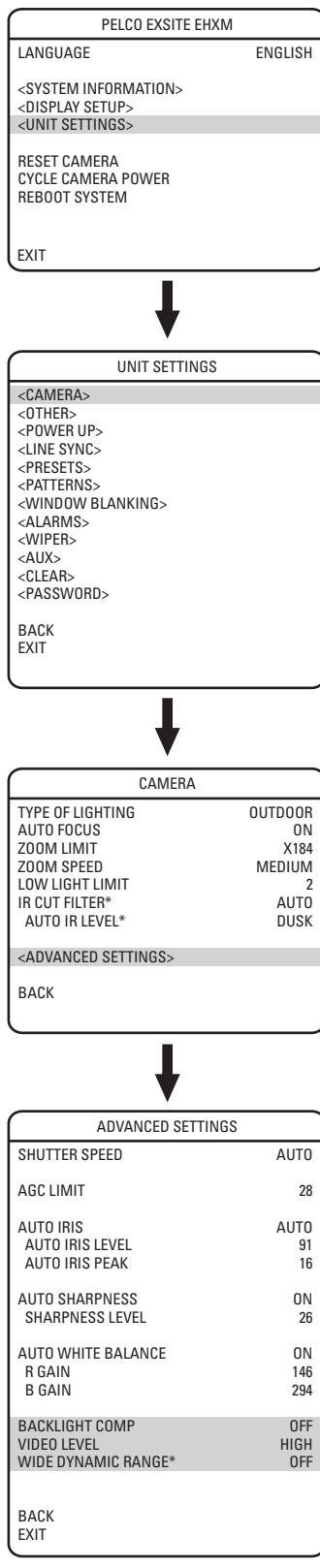
AUTO WHITE BALANCE

This feature automatically processes the viewed image to retain color balance over a color temperature range. The default setting for auto white balance is ON.

R GAIN Adjusts the picture output in the red range. As you change the value, you will see the color change on your monitor.

B GAIN Adjusts the picture output in the blue range. As you change the value, you will see the color change on your monitor.

* Available only with the 23X day/night camera.



BACKLIGHT COMPENSATION (BLC)

If a bright backlight is present, the subjects in the picture may appear dark or as a silhouette. Backlight compensation enhances objects in the center of the picture. The system uses the center of the picture to adjust the iris. If there is a bright light source outside of this area, it will wash out to white. The camera will adjust the iris so that the object in the sensitive area is properly exposed.

There are two backlight compensation settings:

- | | |
|---------------|--|
| ON | Backlight compensation is activated. |
| OFF (default) | Backlight compensation is not activated. |

NOTE: If backlight compensation is ON, decrease the Auto Iris setting and adjust the Auto IR Level to a darker setting. Refer to the *Auto Iris* and *Auto IR Level* sections.

VIDEO LEVEL

Set the video output to one of the following:

- | |
|---|
| NORMAL - 1.0 volt peak-to-peak |
| HIGH (default setting) - 1.2 volt peak-to-peak to compensate for losses in video cable. |

WIDE DYNAMIC RANGE (23X DAY/NIGHT CAMERA)

The wide dynamic range (WDR) setting balances the brightest and darkest sections of a scene to produce a picture that is better balanced in lighting and provides more detail. The range from the darkest to the brightest sections of the scene is 80X more when WDR is ON than when OFF.

Available settings are OFF and ON. The default setting is OFF. When wide dynamic range is set to ON the frame rate is reduced from the standard 30 frames per second to 15 frames per second.



Wide Dynamic Range ON



Wide Dynamic Range OFF

* Available only with the 23X day/night camera.

Quick Programming Guide



(See Page 9)

OTHER

PELCO EXSITE EHXM	
LANGUAGE	ENGLISH
<SYSTEM INFORMATION>	
<DISPLAY SETUP>	
<UNIT SETTINGS>	
RESET CAMERA	
CYCLE CAMERA POWER	
REBOOT SYSTEM	
EXIT	

PARK TIME

This feature allows the system to begin a specified operation (preset or pattern) after a programmed time of inactivity.

Park time can be programmed from 1 minute to 720 minutes (12 hours), or set to zero, which disables this feature. The default setting is zero.

Park Action

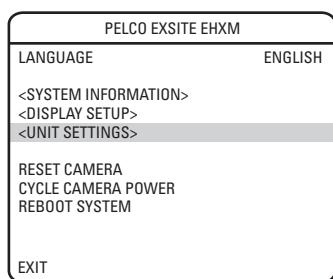
This feature will define the activity when the system parks. The following settings are available:

- | | |
|----------------|------------------------------|
| NONE (default) | No action. |
| PRESET 1 | The system goes to preset 1. |
| PRESET 8 | The system goes to preset 8. |
| PATTERN 1 | The system runs pattern 1. |
| PATTERN 2 | The system runs pattern 2. |
| PATTERN 3 | The system runs pattern 3. |
| PATTERN 4 | The system runs pattern 4. |

UNIT SETTINGS	
<CAMERA>	
<OTHER>	
<POWER UP>	
<LINE SYNC>	
<PRESETS>	
<PATTERNS>	
<WINDOW BLANKING>	
<ALARMS>	
<VIPER>	
<AUX>	
<CLEAR>	
<PASSWORD>	
BACK	
EXIT	

OTHER	
PARK TIME (MINUTES)	0
PARK ACTION	NONE
BACK	
EXIT	

POWER UP

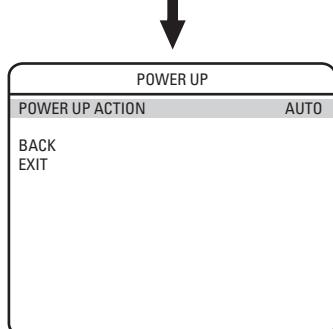
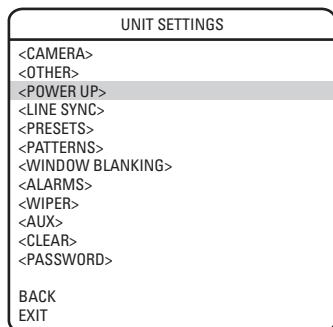


POWER UP ACTION

This setting defines a specific activity to be performed in the event the power to the system is cycled.

The following settings are available:

- | | |
|----------------|--|
| NONE | No action. |
| AUTO (default) | The camera maintains its previous camera settings before the power outage. |
| PRESET 1 | The system to preset 1. |
| PRESET 8 | The system to preset 8. |
| PATTERN 1 | The system pattern 1. |
| PATTERN 2 | The system pattern 2. |
| PATTERN 3 | The system pattern 3. |
| PATTERN 4 | The system pattern 4. |

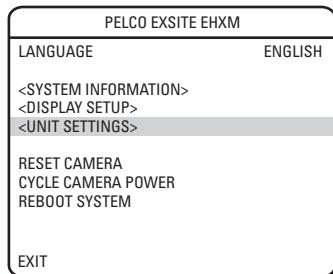


Quick Programming Guide



(See Page 9)

LINE SYNC

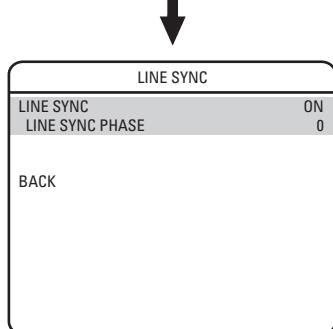
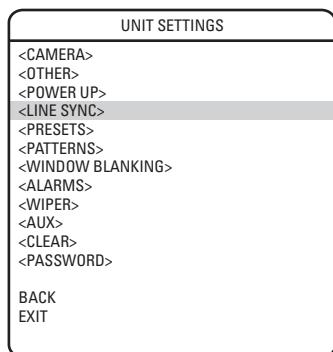


Line sync refers to a programmable function that allows you to synchronize all cameras within a matrix system.

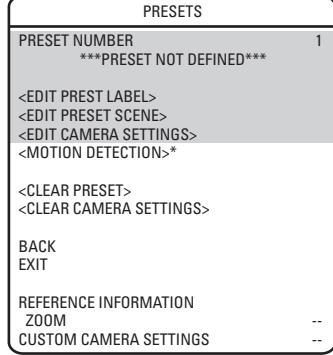
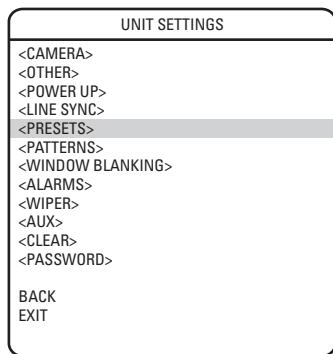
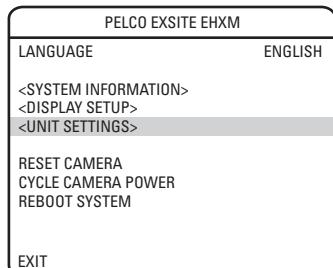
NOTE: ExSite EHXM automatically senses V-sync input. No line sync setup is required for Pelco control systems that provide a V-sync signal.

For matrix systems that do not output V-sync, there are two settings for line synchronization:

- | | |
|--------------|---|
| ON (default) | Adjusts the phase of the line sync to synchronize input power. LINE SYNC PHASE settings range from 0-359 degrees. |
| OFF | The system synchronizes to an internal clock. |



PRESETS



*Available only with the 23X day/night camera.

The ExSite EHXM system has 80 programmable preset positions. Each preset can be programmed to use all programmable camera settings, and motion detection.

The presets are numbered 1-32 and 35-82.

Use the following steps to program a preset.

1. Select the preset number:
 - a. Use the joystick to position the cursor beside PRESET NUMBER. Press Iris Open. The cursor moves to the right.
 - b. Move the joystick up or down to view selections. Press Iris Open to enter selection.
2. Edit the preset label:
 - a. Use the joystick to position the cursor beside EDIT PRESET LABEL.
 - b. Press Iris Open. The following appears on the monitor:

LABEL FOR PRESET	
PRESET NUMBER	-----
1234567890	OK
ABCDEFGHIJ	CANCEL
JKLMNOPRST	
UVWXYZ./	SPACE
abcdefghijklm	BACKSPACE
klmnopqrst	
uvwxyz*::	

 - c. Use the joystick to position the cursor beside a character. Press Iris Open to enter the selection. To clear a character, position the cursor beside BACKSPACE, and then press Iris Open.
 - d. When the label is completed, move the cursor to OK. Press Iris Open to return to the Preset menu.
3. Edit the preset scene:
 - a. Use the joystick to position the cursor beside EDIT PRESET SCENE.
 - b. Press Iris Open.
 - c. Follow the directions displayed on the monitor.
4. Edit preset camera settings:
 - a. Use the joystick to position the cursor beside EDIT CAMERA SETTINGS.
 - b. Press Iris Open. The EDIT CAMERA SETTINGS window appears on the monitor. Refer to the *Camera* and *Advanced Camera Settings* sections of this manual to change preset camera settings.

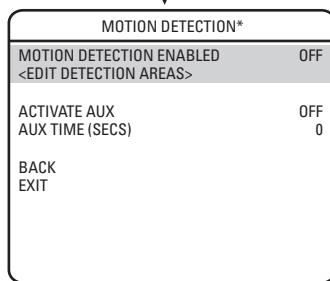
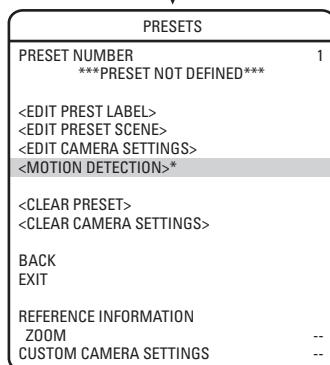
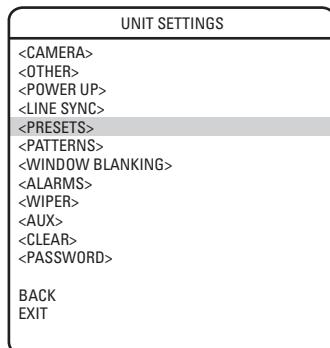
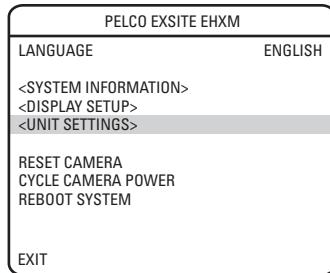
NOTES:

- There are two additional options available for the IR Cut Filter that are only available when programming a preset. The additional settings are YES and NO. If the IR Cut Filter is set to YES, the preset scene will be in color. If the IR Cut Filter is set to NO, the preset scene will be in black and white.
- You can copy camera settings from one preset to another preset. To copy camera settings do the following:
 1. Use the joystick to position the cursor beside COPY CAMERA SETTINGS.
 2. Press Iris Open. The cursor moves to the right.
 3. Move the joystick up or down to view selections. Press Iris Open to enter selection.

Quick Programming Guide



(See Page 9)



* Available only with the 23X day/night camera.

ENABLE MOTION DETECTION (23X DAY/NIGHT CAMERA)

The following are the settings for MOTION DETECTION ENABLED:

- OFF (default) Motion detection is turned off (disabled).
- ON Motion detection is turned on (enabled).

NOTE: Motion detection does not work if the shutter speed is set at less than 1/60 of a second.

EDIT DETECTION AREAS (23X DAY/NIGHT CAMERA)

Four motion detection areas can be defined for a preset. Use the following steps to edit motion detection areas.

1. Edit detection areas 1, 2, 3, or 4:
 - a. Use the joystick to position the cursor beside EDIT DETECTION AREAS.
 - b. Press Iris Open. The EDIT DETECTION AREAS programming window appears on the monitor.
 - c. Use the joystick to position the cursor beside LOCATION for DETECTION AREA 1, 2, 3 or 4.
 - d. Press Iris Open. The cursor moves to the right next to the number 0.
 - e. Move the joystick *up*. A blue rectangle appears in the upper left-hand corner of the screen.
 - f. Use the joystick to place the blue rectangle over the desired detection area.
 - g. Press Iris Open to make a selection.

NOTE: Motion detection is not guaranteed to catch 100% of activity.

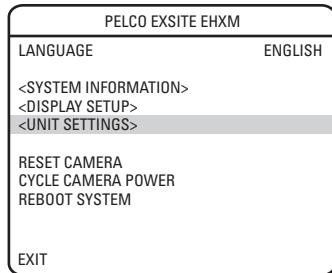


2. Set the sensitivity of the motion detection area:

- a. Position the cursor next to SENSITIVITY for DETECTION AREA 1, 2, 3 or 4.
- b. Press Iris Open, the cursor moves to the right.
- c. Use the joystick to select one of the following sensitivity levels:
 - HIGH - The sensitivity level is high. Slight changes in light level and contrast are detectable.
 - MEDIUM (default) - Average sensitivity.
 - LOW - The sensitivity level is low.
- d. Press Iris Open to make selection.

EDIT DETECTION AREAS*	
DETECTION AREA 1	LOCATION 0 SENSITIVITY MEDIUM
DETECTION AREA 2	LOCATION 0 SENSITIVITY MEDIUM
DETECTION AREA 3	LOCATION 0 SENSITIVITY MEDIUM
DETECTION AREA 4	LOCATION 0 SENSITIVITY MEDIUM
BACK	
EXIT	

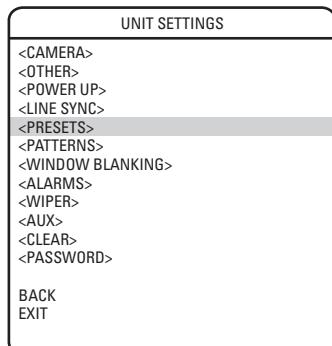
* AVAILABLE ONLY WITH THE 23X DAY/NIGHT CAMERA.



ACTIVATE AUX COMMAND (23X DAY/NIGHT CAMERA)

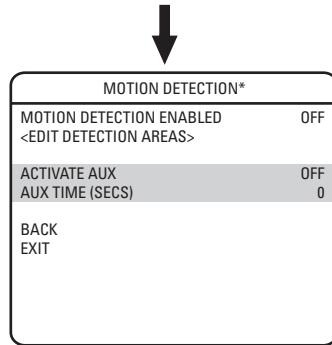
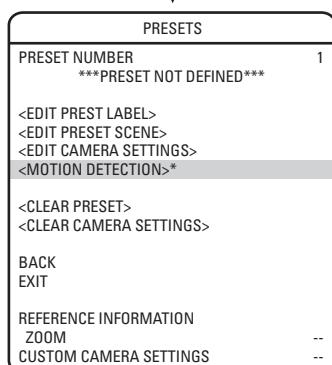
Motion detection can be programmed to trigger an auxiliary command when motion is detected. The following are the settings for ACTIVATE AUX:

- | | |
|---------------|---|
| OFF (default) | Motion detection will not trigger an AUX command. |
| 1 | Triggers a command to AUX 1. |
| 2 | Triggers a command to AUX 2. |



AUX TIME (23X DAY/NIGHT CAMERA)

Aux time is the length of time the auxiliary will remain on after motion is detected. Available settings for AUX TIME are 1 through 60 seconds.



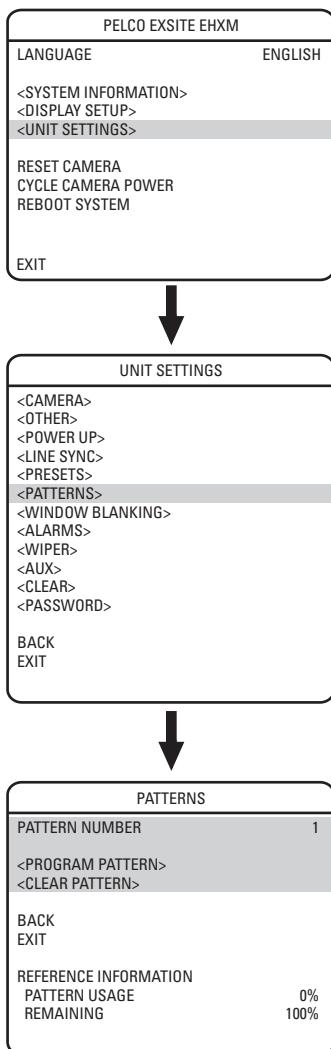
* Available only with the 23X day/night camera.

Quick Programming Guide



(See Page 9)

PATTERNS



A pattern is a memorized, repeating, series of zoom and preset functions that can be recalled with a command from a controller or automatically by a programmed function (alarm or power-up).

The ExSite EHXM can handle up to four user-defined patterns. Pattern length is based upon memory usage rather than a fixed amount of time. The complexity of a pattern will determine the amount of storage available to program other patterns.

To program a pattern:

1. Use the joystick to position the cursor beside PATTERN NUMBER. Press Iris Open. The cursor moves to the right.
2. Move the joystick up or down to view selections. Press Iris Open to enter selection.
3. Use the joystick to position the cursor beside PROGRAM PATTERN.
4. Press Iris Open. The Patterns programming window appears on the monitor.
5. Follow the directions displayed on the monitor.

After a pattern is programmed, the remaining storage percentage is displayed on the screen. This is the amount of memory available to program the remaining patterns.

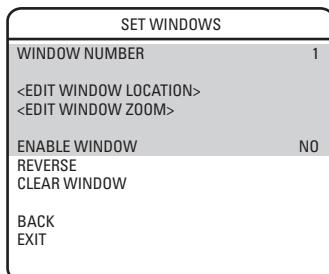
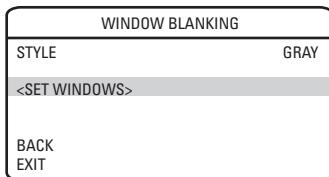
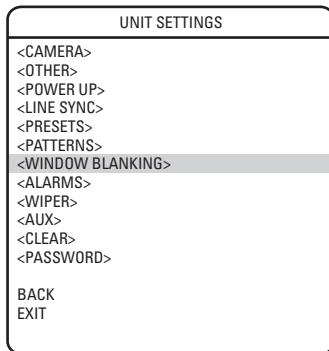
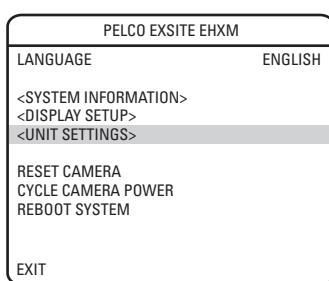
To clear a pattern:

1. Use the joystick to position the cursor beside CLEAR PATTERN.
2. Press Iris Open.
3. Follow the directions displayed on the monitor.

NOTES:

- When programming one or more presets within a pattern use the normal controller commands to Call a Preset.
- Not all controllers can start all four patterns. However, any of the four patterns can be automatically started with power-up, and alarm functions.

WINDOW BLANKING



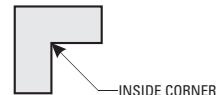
Window blanking allows a user to program up to eight, four-sided, user-defined areas that cannot be viewed by the operator of the system. A blanked area will automatically adjust in size as the lens zooms telephoto and wide.

ExSite EHXM has two style modes for window blanking, GRAY and SMEAR. If style is set to gray, the blanked area is covered with a solid gray window. If smear is selected, images behind the window will be noticeable but not distinguishable.

To set a window blanking area:

1. Use the joystick to position the cursor beside WINDOW BLANKING. Press Iris Open. The WINDOW BLANKING menu appears on the screen.
2. Move the joystick to position the cursor beside SET WINDOWS. Press Iris Open to enter.
3. Position the cursor beside WINDOW NUMBER. Press Iris Open. The cursor moves to the right.
4. Move the joystick up or down to view selections. Press Iris Open to enter selection.
5. Use the joystick to position the cursor beside EDIT WINDOW LOCATION. Press Iris Open, and then follow the instructions that appear on the screen.

NOTE: Use the inside corner of the window selection tool as a guide when selecting the upper left, upper right, bottom right, and bottom left corners of the window.



Set windows are not visible when editing a new window location.

When all four corners are set, the SET WINDOWS menu reappears, the blanked area is displayed, and the ENABLE WINDOW option is set to YES.

6. The blanked area can be programmed to turn on or off at a specified zoom point. To set the zoom point:
 - a. Use the joystick to position the cursor beside EDIT WINDOW ZOOM, and then press Iris Open.
 - b. Zoom in to the point where you want window blanking to turn on. Press Iris Open to set the zoom point.

NOTES:

- Since the area is already blanked out, it may be difficult to determine when you want window blanking to turn on. Reverse the window before setting the zoom point. When finished reverse the window again to blank out the area.
- Increase the size of the window if any part of the blanked area is revealed during pan, tilt, and zoom operations.



Window Blanking Disabled

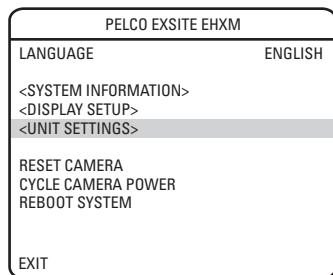


Window Blanking Enabled

Quick Programming Guide

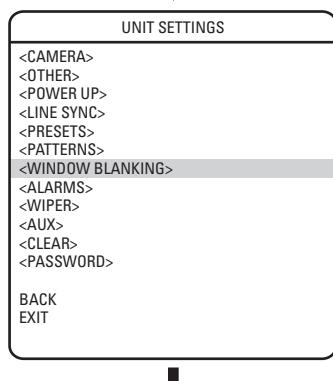


(See Page 9)



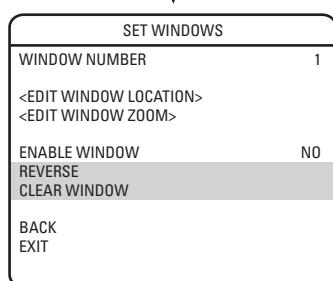
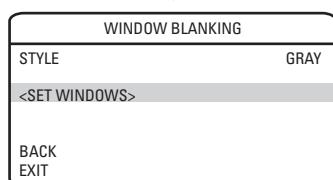
REVERSE

A blanked out area can be reversed to make it visible and the areas on both sides of it not visible. The areas above and below the blanking area remain visible. Reversing the window a second time will return it to its original condition.

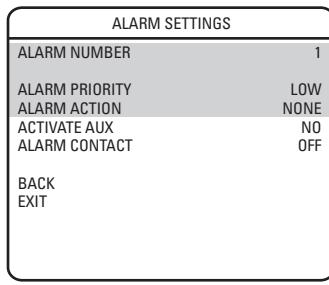
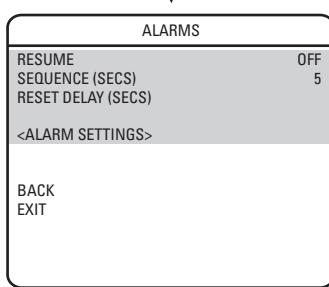
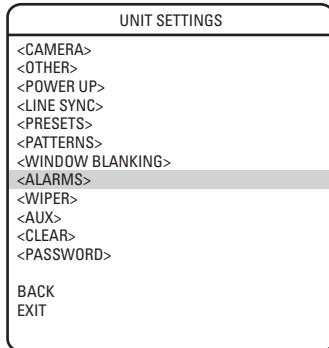
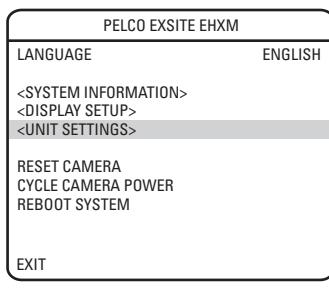


CLEAR WINDOW

All areas that have been set for window blanking are cleared.



ALARMS



The ExSite EHXM system has seven alarm inputs, which can be programmed as high, medium or low priority. When an alarm is received, an input signal to the unit triggers the user-defined action (go to preset, run pattern, etc.) programmed for the alarm.

There are three global alarm settings:

- | | |
|-------------|---|
| RESUME | This mode lets the system resume its previous camera settings after all alarms are cleared. |
| SEQUENCE | This is the time the system will perform an alarm activity when more than one alarm of the same priority occurs at the same time. |
| RESET DELAY | This is the amount of time the system considers the alarm to be active after it has physically cleared. |

Use the following steps to program alarm settings.

1. Use the joystick to position the cursor beside ALARM SETTINGS. Press Iris Open.
2. Select the alarm number:
 - a. Use the joystick to position the cursor beside ALARM NUMBER.
 - b. Press Iris Open. The cursor moves to the right.
 - c. Move the joystick up or down to view selections. Press Iris Open to enter selection.
3. Select the alarm priority:
 - a. Use the joystick to position the cursor beside ALARM PRIORITY.
 - b. Press Iris Open. The cursor moves to the right.
 - c. Move the joystick up or down to view the available selections. Available settings include HIGH, MEDIUM, and LOW (default). If multiple alarms with different priorities are active at the same time, the dome will only go to the alarms with the highest priority.
 - d. Press Iris Open to enter selection.

NOTES:

- HIGH alarm action takes highest priority and will override manual pan, tilt, and zoom control.
- MEDIUM/LOW alarm action will not occur if an alarm occurs during manual pan, tilt, and zoom control.

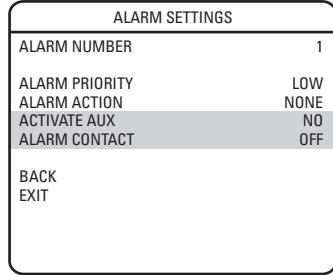
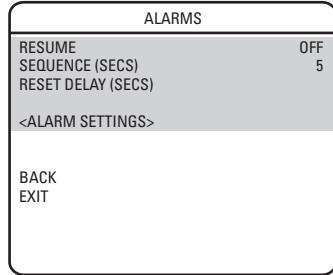
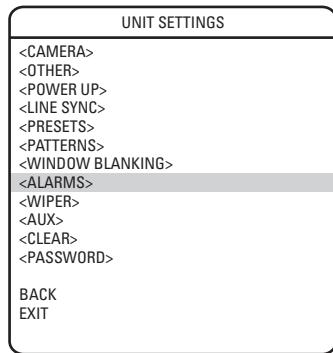
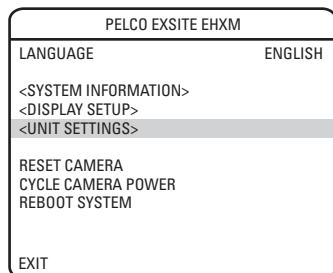
4. Set the alarm action:
 - a. Use the joystick to position the cursor beside ALARM ACTION.
 - b. Press Iris Open. The cursor moves to the right.
 - c. Move the joystick up or down to view the available selections. The following are the settings for alarm action:

NONE	No action when alarm is triggered.
PRESET	The system goes to the preset that is the same as the alarm number. Preset 1 will go to Alarm 1.
PATTERN 1	The system runs pattern 1 when alarm is triggered.
PATTERN 2	The system runs pattern 2 when alarm is triggered.
PATTERN 3	The system runs pattern 3 when alarm is triggered.
PATTERN 4	The system runs pattern 4 when alarm is triggered.
 - d. Press Iris Open to enter selection.

Quick Programming Guide



(See Page 9)



5. Set the auxiliary to activate:
- Use the joystick to position the cursor beside ACTIVATE AUX.
 - Press Iris Open. The cursor moves to the right.
 - Move the joystick up or down to view the following available selections.

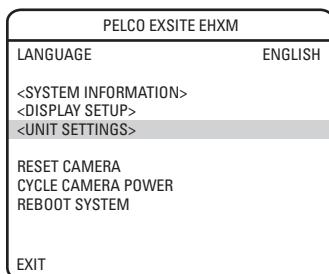
NO (default)	Not activated.
1	An alarm action will close AUX 1.
2	An alarm action will close AUX 2.
 - Press Iris Open to enter selection.

NOTE: The AUX 1/AUX2 will stop when all the alarms assigned to it have cleared. If the AUX1/AUX is set up as momentary, then it will be activated each time a new alarm is activated.

6. Set the alarm contact:
- Use the joystick to position the cursor beside ALARM CONTACT.
 - Press Iris Open. The cursor moves to the right.
 - Move the joystick up or down to view the following available selections.

N/O (default)	Normally open
N/C	Normally closed
 - Press Iris Open to enter selection.

WIPER



EHXM31C22-2	EHXM31C22-2X
EHXM31C22-7	EHXM31C22-7X
EHXM31CBW23-2	EHXM31CBW23-2X
EHXM31CBW23-7	EHXM31CBW23-7X

NOTE: The Wiper menu is only available on the above models. To check the unit model refer to the *System Information* section of this manual.

WIPER CONTROL

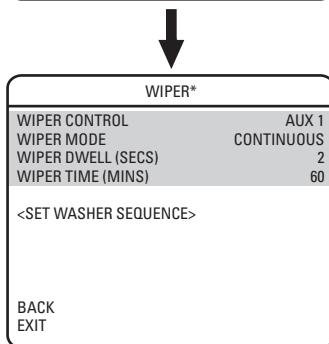
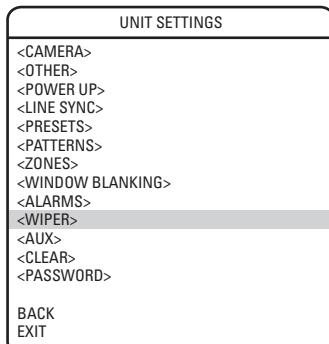
This feature programs the on/off control for the wiper. There are two available settings for wiper control, AUX 1 and Preset 86. If the wiper control is programmed for AUX 1, the wiper will operate when AUX 1 is accessed. If the wiper control is set to Preset 86, selecting preset 86 on your controller will turn the wiper on/off.

WIPER MODE

Wiper mode determines how the wiper will act after the wiper control is turned on/off. There are two modes of operation for wiper mode:

MOMENTARY (default) Programs the wiper to move across the enclosure window once and then back to its starting position.

CONTINUOUS Programs the wiper to operate continually after the wiper is turned on. The wiper will continue to operate until the wiper control (AUX 1 or preset 86) is pressed again or until the programmed wiper time is completed.



* AVAILABLE ONLY WITH THE WIPER MODELS.

WIPER DWELL

The wiper can be programmed to wipe the enclosure window every 2 to 30 seconds. This setting only works when the wiper is programmed for continuous mode. The dwell time can be programmed from 2 to 30 seconds.

WIPER TIME

Wiper time programs how long the wiper will be on before it automatically shuts off. This setting only works when the wiper is programmed for continuous mode. Wiper time can be programmed from 60 to 1,440 minutes (1 to 24 hours).

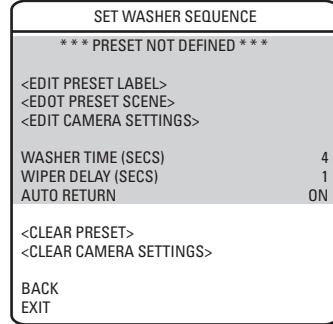
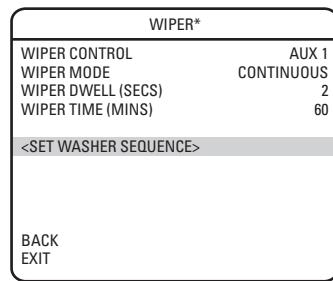
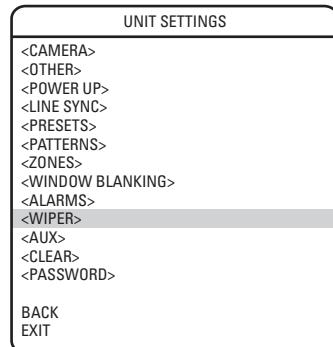
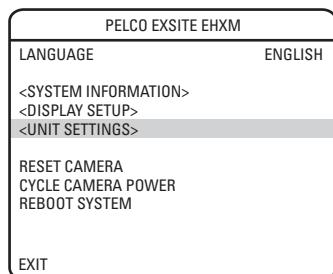
NOTE: CM9700 Matrix Systems Only – For the wiper to operate in continuous mode, the AUX 1 function in the camera file must be set to latching in the CM9700-MGR. If the AUX 1 camera file is not latching, the wiper will only operate in momentary mode, even if the system wiper is programmed for continuous operation. Refer to the CM9700-MGR Software Guide for instructions.

Quick Programming Guide



(See Page 9)

SET WASHER SEQUENCE



* Available only with the wiper models.

An external washer (not supplied by Pelco) can be used to wash the window of the enclosure. Accessing AUX 3 or selecting Preset 87 will start the washer sequence.

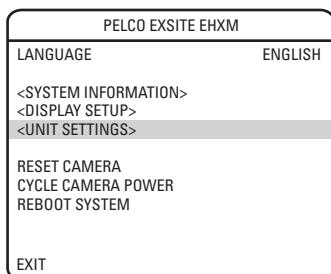
Use the following steps to program the washer sequence.

1. Use the joystick to position the cursor beside WIPER and then press Iris Open. The wiper menu appears on the monitor.
 2. Position the cursor beside SET WASHER SEQUENCE and then press Iris Open.
 3. Edit the preset label:
 - a. Use the joystick to position the cursor beside EDIT PRESET LABEL.
 - b. Press Iris Open. The following appears on the monitor:
- LABEL FOR PRESET WASH

WASH -----

1234567890	OK
ABCDEFGHIJ	CANCEL
KLMNOPQRST	
UVWXYZ,-/	
abcdefghijkl	SPACE
klmnopqrst	BACKSPACE
uvwxyz#&."	
- c. Use the joystick to position the cursor beside a character. Press Iris Open to enter selection. To clear a character, position the cursor beside BACKSPACE, and then press Iris Open.
 - d. When the label is completed, move the cursor to OK. Press Iris Open to return to the Set Washer Sequence menu.
 4. Edit the preset scene:
 - a. Use the joystick to position the cursor beside EDIT PRESET SCENE.
 - b. Press Iris Open.
 - c. Follow the directions displayed on the monitor.
 5. Edit preset camera settings:
 - a. Use the joystick to position the cursor beside EDIT CAMERA SETTINGS.
 - b. Press Iris Open. The EDIT CAMERA SETTINGS window appears on the monitor. Refer to the *Camera* and *Advanced Camera Settings* sections of this manual to change camera settings.
 6. Set the washer time. The washer time programs how long the wiper will be on before it automatically shuts off. Washer time can be programmed from 4 to 60 seconds.
 7. Program the wiper delay. Wiper delay programs when the wiper will start after the washer sequence has started. Wiper delay can be programmed from 1 to 30 seconds.
 8. Program the Auto Return to ON or OFF. If the auto return is set to ON the unit will return to the last position before the system started the washer sequence. If it is set to OFF, the system will remain at the preset scene for the washer sequence.

AUX



An auxiliary output is a programmable signal from the system that can trigger another device to operate. An auxiliary output is programmable to trigger from an alarm or from a controller.

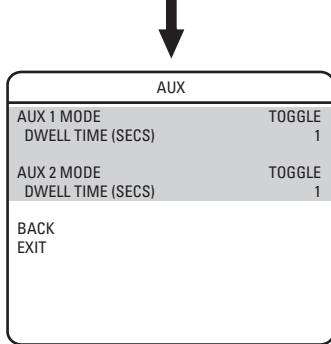
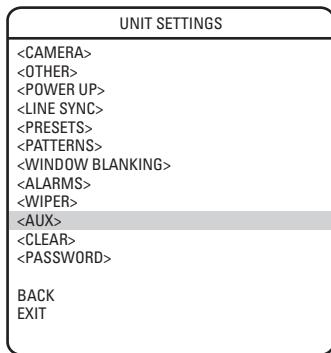
An AUX 1 command from the controller will activate the relay in the system and operate the device that is connected to the relay. The output of AUX 1 and AUX 2 can be connected to the alarm input of a system switch to activate automatic monitor switching and recording.

The following are the available AUX MODE settings:

TOGGLE (default) Changes the state of the auxiliary output every time an AUX command is received from the controller.

LATCHING Must receive an AUX ON/AUX OFF command from the controller to turn the auxiliary output on/off.

MOMENTARY An AUX ON command from the controller turns the auxiliary output on for the programmed DWELL TIME. The auxiliary output will automatically turn off when the dwell time is finished.

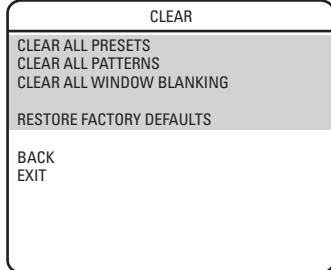
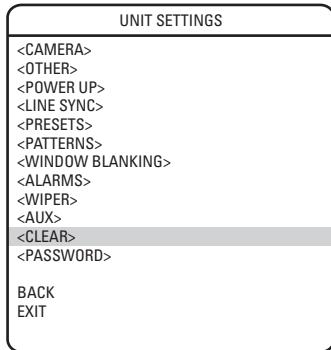
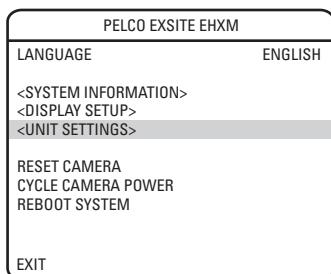


Quick Programming Guide



(See Page 9)

CLEAR

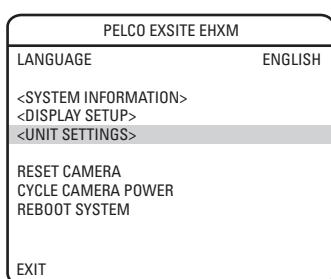


Use this setting to clear user-defined settings or return the system to factory default settings.

The following are the available CLEAR settings:

- | | |
|--------------------------|--|
| ALL PRESETS | Clears all presets. To clear a single preset, refer to the <i>Presets</i> section. |
| ALL PATTERNS | Clears all patterns. To clear a single pattern, refer to the <i>Patterns</i> section. |
| ALL WINDOW BLANKING | Clears all blanked windows. To clear a single blanked window, refer to the <i>Window Blanking</i> section. |
| RESTORE FACTORY DEFAULTS | Restores all camera settings to factory default settings. |

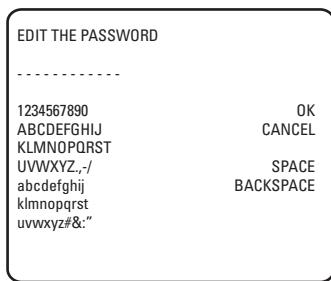
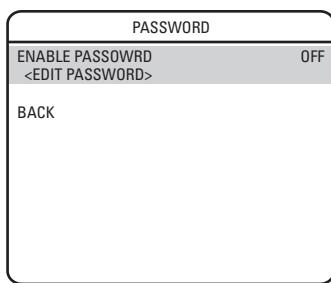
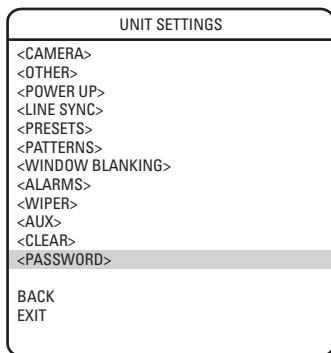
PASSWORD



ExSite EHXN features password protection to prevent unauthorized changes to the system settings. An operator can open the System Information and Display Setup Screens, but cannot access any of the Unit Settings menus.

Controller/keyboard commands cannot override password-protected settings. If a keyboard is used to set a preset or pattern, the Enter Password screen appears on the monitor. The password must be entered before programming can continue.

At least one character must be entered to create a valid password.

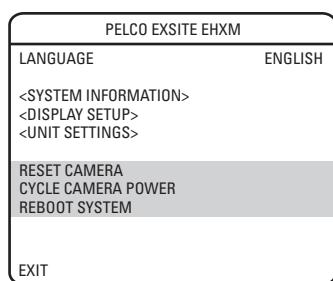


Quick Programming Guide



(See Page 9)

Reset, Cycle Power, Reboot



RESET CAMERA

Use this function to reset all camera settings to factory default parameters.

CYCLE CAMERA POWER

If the camera is not operating or if you lose camera control, cycle camera power. Cycling camera power resets the camera but does not change any saved camera settings.

REBOOT SYSTEM

Reboot the system if it is not operating or if there is no control. Rebooting the system will cycle pan and tilt and camera power without changing programmed settings.

Software/Language File Upload

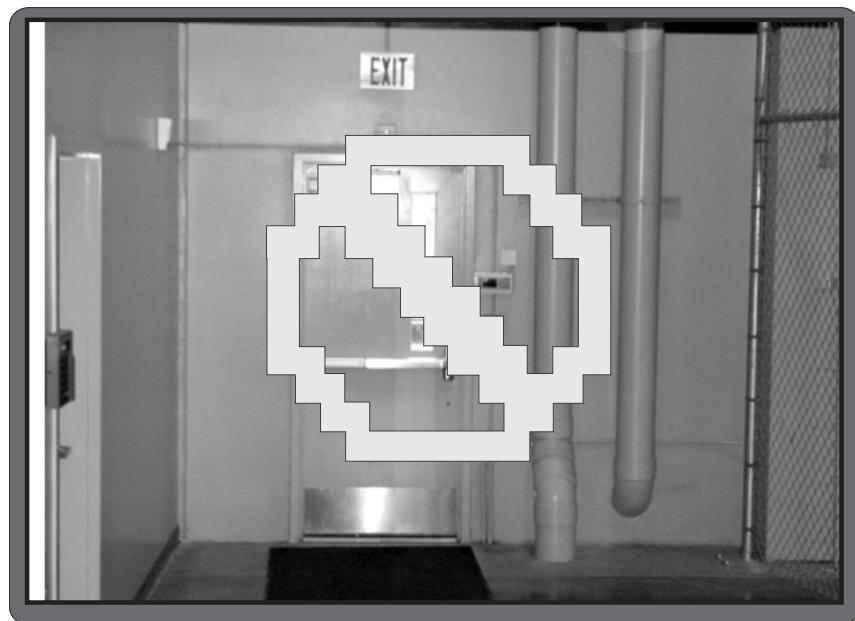
The ExSite EHXM system allows access for on-site setup, testing, and uploading of revised operating software and language files. A Pelco field service tool is required to perform these operations. Field service tools include Pelco's remote monitor kit (IPS-RMK), remote data port box (IPS-RDPE-2), and remote monitor cable (IPS-CABLE).

For instructions on how to upload revised operating software and language files refer to the Installation/Operation manual supplied with the field service tool.

NOTE: Only perform software uploads when necessary. Software uploads do not need to be performed if the system is operating properly.

UPLOAD ICON

During a software/language file upload, an icon will appear on the monitor to indicate data is being transferred to the system (refer to the figure below). The default setting for data transmission is 115.2 KB per second. Noisy and long-run connections will slow the transmission rate.



Upload Icon

Quick Programming Guide



(See Page 9)

Specifications

Camera	Day/Night (23X) Color	LowLight™ (22X) Color
Signal Format	NTSC, PAL	NTSC, PAL
Scanning System	2:1 interlace	2:1 Interlace
Image Sensor	1/4-inch CCD	1/4-inch EXview HAD™ CCD
Effective pixels		
NTSC	724 (H) x 494 (V)	768 (H) x 494 (V)
PAL	724 (H) x 582 (V)	752 (H) x 582 (V)
Horizontal Resolution		
NTSC	>470 TV lines	>470 TV lines
PAL	>470 TV lines	>460 TV lines
Lens	F1.6 (F = 3.6~82.8 mm optical)	F1.6 (F = 4~88 mm optical)
Zoom	23X optical, 10X digital	22X optical, 12X digital
Zoom Speed	2.9/4.2/5.8 seconds	2.4/3.9/6.3 seconds
Horizontal Angle of view	54° at 3.6 mm wide zoom 2.5° at 82.8 mm telephoto zoom	47° at 4.0 mm wide zoom 2.2° at 88 mm telephoto zoom
Focus	Automatic with manual override	Automatic with manual override
Maximum Sensitivity at 35 IRE		
NTSC	0.08 lux at 1/2 sec shutter (color) 0.3 lux at 1/60 sec shutter (B-W) 0.013 lux at 1/2 sec shutter (B-W)	0.02 lux at 1/2 sec shutter
PAL	0.08 lux at 1/1.5 sec shutter (color) 0.3 lux at 1/50 sec shutter (B-W) 0.013 lux at 1/1.5 sec shutter (B-W)	0.02 lux at 1/1.5 sec shutter
Sync System	Internal/AC line lock, phase adjustable via remote control, V-Sync*	Internal/AC line lock, phase adjustable via remote control, V-Sync*
White Balance	Automatic with manual override*	Automatic with manual override*
Shutter Speed	Automatic (electronic iris)/Manual	Automatic (electronic iris)/Manual
NTSC	1/2~1/30,000*	1/2~1/30,000*
PAL	1/1.5~1/30,000*	1/1.5~1/30,000*
Iris Control	Automatic Iris Control with manual override*	Automatic Iris Control with manual override*
Gain Control	Automatic/OFF*	Automatic/OFF*
Video Output	1 Vp-p, 75 ohms	1 Vp-p, 75 ohms
Video Signal to Noise	>50 dB	>50 dB
Wide Dynamic Range	80X	N/A

*Manual control of camera setup functions can be done with CM6700, CM6800, CM8500, CM9500, CM9740, CM9760, CM9770, CM9780, KBD200A, KBD300A, and MPT9500 controllers, but not with CM7500, MPT9000 or KBD9000 controllers.

PRODUCT WARRANTY AND RETURN INFORMATION

WARRANTY

Pelco will repair or replace, without charge, any merchandise proved defective in material or workmanship **for a period of one year** after the date of shipment.

Exceptions to this warranty are as noted below:

- Five years on FT/FR8000 Series fiber optic products.
- Three years on Genex® Series products (multiplexers, server, and keyboard).
- Three years on Camclosure® and fixed camera models, except the CC3701H-2, CC3701H-2X, CC3751H-2, CC3651H-2X, MC3651H-2, and MC3651H-2X camera models, which have a five-year warranty.
- Two years on standard motorized or fixed focal length lenses.
- Two years on Legacy®, CM6700/CM6800/CM9700 Series matrix, and DF5/DF8 Series fixed dome products.
- Two years on Spectra®, Esprit®, ExSite™, and PS20 scanners, including when used in continuous motion applications.
- Two years on Esprit® and WW5700 Series window wiper (excluding wiper blades).
- Eighteen months on DX Series digital video recorders, NVR300 Series network video recorders, and Endura™ Series distributed network-based video products.
- One year (except video heads) on video cassette recorders (VCRs). Video heads will be covered for a period of six months.
- Six months on all pan and tilts, scanners or preset lenses used in continuous motion applications (that is, preset scan, tour and auto scan modes).

Pelco will warrant all replacement parts and repairs for 90 days from the date of Pelco shipment. All goods requiring warranty repair shall be sent freight prepaid to Pelco, Clovis, California. Repairs made necessary by reason of misuse, alteration, normal wear, or accident are not covered under this warranty.

Pelco assumes no risk and shall be subject to no liability for damages or loss resulting from the specific use or application made of the Products. Pelco's liability for any claim, whether based on breach of contract, negligence, infringement of any rights of any party or product liability, relating to the Products shall not exceed the price paid by the Dealer to Pelco for such Products. In no event will Pelco be liable for any special, incidental or consequential damages (including loss of use, loss of profit and claims of third parties) however caused, whether by the negligence of Pelco or otherwise.

The above warranty provides the Dealer with specific legal rights. The Dealer may also have additional rights, which are subject to variation from state to state.

If a warranty repair is required, the Dealer must contact Pelco at (800) 289-9100 or (559) 292-1981 to obtain a Repair Authorization number (RA), and provide the following information:

1. Model and serial number
2. Date of shipment, P.O. number, Sales Order number, or Pelco invoice number
3. Details of the defect or problem

If there is a dispute regarding the warranty of a product which does not fall under the warranty conditions stated above, please include a written explanation with the product when returned.

Method of return shipment shall be the same or equal to the method by which the item was received by Pelco.

RETURNS

In order to expedite parts returned to the factory for repair or credit, please call the factory at (800) 289-9100 or (559) 292-1981 to obtain an authorization number (CA number if returned for credit, and RA number if returned for repair).

All merchandise returned for credit may be subject to a 20% restocking and refurbishing charge.

Goods returned for repair or credit should be clearly identified with the assigned CA or RA number and freight should be prepaid. Ship to the appropriate address below.

If you are located within the continental U.S., Alaska, Hawaii or Puerto Rico, send goods to:

Service Department
Pelco
3500 Pelco Way
Clovis, CA 93612-5699

If you are located outside the continental U.S., Alaska, Hawaii or Puerto Rico and are instructed to return goods to the USA, you may do one of the following:

If the goods are to be sent by a COURIER SERVICE, send the goods to:

Pelco
3500 Pelco Way
Clovis, CA 93612-5699 USA

If the goods are to be sent by a FREIGHT FORWARDER, send the goods to:

Pelco c/o Expeditors
473 Eccles Avenue
South San Francisco, CA 94080 USA
Phone: 650-737-1700
Fax: 650-737-0933

REVISION HISTORY

Manual #	Date	Comments
C1301M	6/05	Original version.



Worldwide Headquarters
3500 Pelco Way
Clovis, California 93612 USA

USA & Canada
Tel: 800/289-9100
Fax: 800/289-9150

International
Tel: 1-559/292-1981
Fax: 1-559/348-1120

www.pelco.com

ISO9001